

## Project Name: Off-Grid Houseboat Recreation - Zimbabwe



**Company:** Installed by Sunchoice Energy  
Powered by Samansco

**Location:** Lake Kariba, Zimbabwe

**Project Date:** November, 2020

**Main Contact:** Milton Chitombo  
Technical Director

**Application:** Recreation: Houseboat Rental

**Customer Type:** End User and Rental Business

**Phocos Product:** **Any-Grid PSW-H Hybrid Inverter**

**Quantity:** Phase 1: 1 Unit

## Project Description/ Key Details

- The customer had an existing inverter system that didn't have the capacity or the features required to meet the houseboat owner's goals. They were forced to dock the houseboat and pay for the electricity at the dock to charge their batteries, as well as run their generator to power their highest consumption loads. This combination was costly, inconvenient, and created a barrier for houseboat renters to have freedom and fully enjoy their vacation on the lake.
- Running the generator often is noisy, creates uncomfortable fumes, requires fueling often, and potential maintenance. For these reasons, the houseboat owners wanted to minimize the generator usage.
- The customer wanted their renters to be able to go out on the lake and feel full freedom, not being required to power the batteries up at the dock. This will enhance the vacation experience.
- The houseboat loads are simple but high consumption, so the need to assure uninterrupted operation was vital. A vacation without problems and interruptions creates return renters, and positive word of mouth for new renters.

## Solution/ Results

- SunChoice Energy upgraded the entire existing system to be a better fit for the application and goals. They chose the Phocos Any-Grid Hybrid Inverter/charger to have more system capacity and flexibility. The installer strategically used the SUB feature to compliment this system design. This allowed the customer to increase their lithium battery capacity and increase their solar PV array size to better handle the large and small loads (3 refrigerators, air conditioning, radar/navigation equipment, lights, pump for restroom, entertainment and phone charging).
- Renters will now enjoy their precious vacation time using the large capacity loads without the need to go to the dock and wait for battery charging. They will also no longer be impacted by the noise and fumes of the generator. The recent system upgrade makes this houseboat rental more desirable for vacationers to enjoy energy independence while on the lake. This allows more time for relaxing, fishing, and making memories.
- Safety has been increased, as the utility connection at the dock (cable connections) were challenging at the port.
- The houseboat owner is seeing a 6% increase in rental activity (during COVID 19), and has less hassles when renting, as far as access to power goes. They have the option to charge 10% more to help with phase II of this power solution expansion. This new design creates a more 'maintenance-free' lifestyle for the renters. The other perk is the owners will have a strong return on investment with clean and sustainable energy. They will save money over time from their previous system set-up avoiding the requirement of expensive shore utility power and generator power.

*"Enjoying nature and breathing clean air with no fumes or noise from a generator is the dream of every individual who is on vacation. Choose Phocos today and enjoy clean and uninterrupted power always."*

— Mr. Milton Chitombo, Technical Director

**\$4,400 Saving/year**

In generator fuel (est. 6 hr/day all year at \$1.27/L for diesel)

**\$1,560 Saving/year**

In shore utility power (est. 4 hr/day – all year)

**Featured Product:**



**Any-Grid  
PSW-H-5kW-230/48V**